

200670-6048507
10058409-013002

WHAT IS CLAIMED IS:

1. A DC motor control method in a device which drives a mechanism by using a DC motor as a power source, comprising:
 - 5 a step of discontinuously reducing a velocity command value to said motor upon deceleration of said motor.
2. The DC motor control method according to claim 1,
 - 10 wherein when said mechanism arrives at a predetermined position, the velocity command value to said motor is discontinuously reduced.
3. The DC motor control method according to claim 2,
 - 15 wherein said velocity command value represents a curve profile in a period before said mechanism arrives at the predetermined position, and said velocity command value is a constant value in a period after said mechanism arrives at the predetermined position.
- 20 4. The DC motor control method according to claim 3, wherein said curve profile is expressed by a cubic function.
- 25 5. A program product for realizing a DC motor control method in a device which drives a mechanism by using a DC motor as a power source, including:

program code for realizing a process for discontinuously reducing a velocity command value to said motor upon deceleration of said motor.

- 5 6. A storage medium storing a program for realizing a DC motor control method in a device which drives a mechanism by using a DC motor as a power source, storing:

program code for realizing a process for
10 discontinuously reducing a velocity command value to said motor upon deceleration of said motor.

7. A DC motor control apparatus in a device which drives a mechanism by using a DC motor as a power source,
15 comprising:

first velocity command value generation means for generating a velocity command value to said motor in accordance with a first function;

- second velocity command value generation means for
20 generating a velocity command value to said motor in accordance with a second function less than a minimum value of the velocity command value generated by said first velocity command value generation means; and

- change means for changing the velocity command
25 value to said motor generated by said first velocity command value generation means to the velocity command value generated by said second velocity command value

10058409.013002

generation means, at predetermined timing.

8. The DC motor control apparatus according to claim 7,
wherein said change means changes the velocity command
5 value to said motor when said mechanism arrives at a
predetermined position.

9. The DC motor control apparatus according to claim 7,
wherein a curve profile is represented by said first
10 function, and a constant value is outputted in
accordance with said second function.

10. The DC motor control apparatus according to claim 9,
wherein said first function is a cubic function.

15

11. An electronic device having a DC motor control
apparatus in a device which drives a mechanism by using
a DC motor as a power source, wherein said DC motor
control apparatus comprising:

20 first velocity command value generation means for
generating a velocity command value to said motor in
accordance with a first function;

second velocity command value generation means for
generating a velocity command value to said motor in
25 accordance with a second function less than a minimum
value of the velocity command value generated by said
first velocity command value generation means; and

10058409-013002

- change means for changing the velocity command value to said motor generated by said first velocity command value generation means to the velocity command value generated by said second velocity command value
- 5 generation means, at predetermined timing.
12. A DC motor control method in a device which drives a mechanism by using a DC motor as a power source,
- wherein a velocity command value to said motor is
- 10 generated in accordance with a profile where a deceleration velocity in a first half of a deceleration area is higher than that in a last half of the deceleration area.
- 15 13. The DC motor control method according to claim 12, wherein in said profile, time for low-speed drive is long in the last half of said deceleration area.
14. The DC motor control method according to claim 12,
- 20 wherein said profile is represented by a continuous curve.
15. The DC motor control method according to claim 12, wherein said profile is represented by a sextic function.
- 25 16. A program product for realizing a DC motor control method in a device which drives a mechanism by using a

DC motor as a power source, including:

program code corresponding to a process for
generating a velocity command value to said motor in
accordance with a profile where a deceleration velocity
5 in a first half of a deceleration area is higher than
that in a last half of the deceleration area.

17. A storage medium storing a program for realizing a
DC motor control method in a device which drives a
10 mechanism by using a DC motor as a power source,
storing:

program code corresponding to a process for
generating a velocity command value to said motor in
accordance with a profile where a deceleration velocity
15 in a first half of a deceleration area is higher than
that in a last half of the deceleration area.

18. A DC motor control apparatus in a device which
drives a mechanism by using a DC motor as a power source,
20 comprising:

velocity command value generation means for
generating a velocity command value to said motor in
accordance with a profile where a deceleration velocity
in a first half of a deceleration area is higher than
25 that in a last half of the deceleration area.

19. The DC motor control apparatus according to claim 18,

10058409.013002

wherein in said profile, time for low-speed drive is long in the last half of said deceleration area.

20. The DC motor control apparatus according to claim 18,
5 wherein said profile is represented by a continuous curve.

21. The DC motor control apparatus according to claim 18,
10 wherein said profile is represented by a sextic function.

22. An electronic device having a DC motor control apparatus in a device which drives a mechanism by using a DC motor as a power source, wherein said DC motor control apparatus comprising:

15 velocity command value generation means for generating a velocity command value to said motor in accordance with a profile where a deceleration velocity in a first half of a deceleration area is higher than that in a last half of the deceleration area.